

Please type a plus (+) sign in this box → +

PTO/SB/05 (4/98)  
Approved for use through 09/30/2000. OMB 0651-0032  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## UTILITY PATENT APPLICATION TRANSMITTAL

Only for new non-provisional applications under 37 C.F.R. § 1.53(B)

Attorney Docket No. 01-1060/L13.12-0207

First Inventor or Application Identifier Mikhail I. Grinchuk et al.

Title PROCESS FOR DESIGNING COMPARATORS AND  
ADDERS OF SMALL DEPTH

Express Mail Label No. EV19422759SUS

### APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

Address To: Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450



1. ☒ \*Fee Transmittal Form e.g., PTO/SB17  
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Sheets 45]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. § 113) [Total Sheets 12]
4. Oath or Declaration [Total Sheets 3]
  - a. ☒ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 17 completed)

5. ☐ Microfiche Computer Program (Appendix)
6. ☐ Nucleotide and/or Amino Acid Sequence Submission  
(If applicable, all necessary)
  - a. ☐ Computer Readable Copy
  - b. ☐ Paper Copy (Identical to computer copy)
  - c. ☐ Statement verifying identity of above copies

### ACCOMPANYING APPLICATION PARTS

7. ☒ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
9. ☐ English Translation Document
10. ☒ Information Disclosure Statement (IDS/PTO - PTO) ☐ Copies of IDS
11. ☒ Preliminary Amendment
12. ☒ Two Return Receipt Postcards (MPEP 503)
13. ☐ \*Small Entity ☐ Statement filed in prior application.  
Statement(s) Status still proper and desired  
(PTO/SB/09-12)
14. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
15. ☐ Request and Cert. Under 35 USC 122 (Non-Pub)
16. ☒ Other: Application Data Sheet

\* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY  
FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT  
IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation -in part (CIP) of prior application No: \_\_\_\_\_

Prior application information:

Examiner \_\_\_\_\_

Group/Art Unit: \_\_\_\_\_

FOR CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

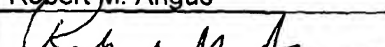
### 17. CORRESPONDENCE

☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name Leo J. Peters  
LSI LOGIC CORPORATION  
1551 McCarthy Boulevard  
M/S D-106  
City Milpitas State CA Zip Code 95035  
Country USA Telephone \_\_\_\_\_ Fax \_\_\_\_\_

Name (Print/type) Robert M. Angus Registration No. (Attorney/Agent) 24,383  
Signature  Date 6/24/03

FEE TRANSMITTAL		Complete if Known																																																																																													
		Application No.																																																																																													
		Filing Date	Herewith																																																																																												
		First Named Inventor	Mikhail I. Grinchuk et al.																																																																																												
		Title	PROCESS FOR DESIGNING COMPARATORS AND ADDERS OF SMALL DEPTH																																																																																												
		Group Art Unit																																																																																													
		Examiner Name																																																																																													
Total Amount of Payment \$ 786		Atty. Docket Number	01-1060/L13.12-0207																																																																																												
METHOD OF PAYMENT (Check One)		FEE CALCULATION (Continued)																																																																																													
1. <input checked="" type="checkbox"/> The Director is hereby authorized to charge \$786 or any additional fee required under 37 C.F.R. § 1.16 and 1.17, including any petition fee, and credit any over payments to Deposit Account No. <u>12-2252</u> .  2. <input type="checkbox"/> Check Enclosed		<b>3. ADDITIONAL FEES</b>  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Large Entity Fee</th> <th style="text-align: left;">Small Entity Fee</th> <th style="text-align: left;">Fee Description</th> <th style="text-align: right;">Fee Paid</th> </tr> <tr> <th>Code (\$)</th> <th>Code (\$)</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1051 130</td> <td>2051 65</td> <td>Surcharge - Late filing fee or oath</td> <td></td> </tr> <tr> <td>1052 50</td> <td>2052 25</td> <td>Surcharge - Late provisional Filing Fee or cover sheet</td> <td></td> </tr> <tr> <td>1053 130</td> <td>1053 130</td> <td>Non-English specification</td> <td></td> </tr> <tr> <td>1812 2,520</td> <td>1812 2,520</td> <td>For Filing a Request for Reexamination. (ex parte)</td> <td></td> </tr> <tr> <td>1251 110</td> <td>2251 55</td> <td>Extension for reply within first month</td> <td></td> </tr> <tr> <td>1252 410</td> <td>2252 205</td> <td>Extension for reply within second month</td> <td></td> </tr> <tr> <td>1253 930</td> <td>2253 465</td> <td>Extension for reply within third month</td> <td></td> </tr> <tr> <td>1254 1,450</td> <td>2254 725</td> <td>Extension for reply within fourth month</td> <td></td> </tr> <tr> <td>1255 1,970</td> <td>2255 985</td> <td>Extension for reply within fifth month</td> <td></td> </tr> <tr> <td>1402 320</td> <td>2402 160</td> <td>Filing a brief in support of an appeal</td> <td></td> </tr> <tr> <td>1403 280</td> <td>2403 140</td> <td>Request for oral hearing</td> <td></td> </tr> <tr> <td>1814 110</td> <td>2814 55</td> <td>Terminal Disclaimer Fee</td> <td></td> </tr> <tr> <td>1452 110</td> <td>2452 55</td> <td>Petition to Revive - unavoidable</td> <td></td> </tr> <tr> <td>1453 1,300</td> <td>2453 650</td> <td>Petition to Revive - unintentional</td> <td></td> </tr> <tr> <td>1501 1,300</td> <td>2501 650</td> <td>Utility/Reissue issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1502 470</td> <td>2502 235</td> <td>Design issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1460 130</td> <td>1460 130</td> <td>Petitions to the Commissioner</td> <td></td> </tr> <tr> <td>1807 50</td> <td>1807 50</td> <td>Petitions related to provisional applications</td> <td></td> </tr> <tr> <td>1806 180</td> <td>1806 180</td> <td>Submission of Information Disclosure Statement</td> <td></td> </tr> <tr> <td>8021 40</td> <td>8021 40</td> <td>Recording each patent assignment per property (times number of properties)</td> <td></td> </tr> <tr> <td colspan="4">Other Fee (specify) _____</td> </tr> </tbody> </table>		Large Entity Fee	Small Entity Fee	Fee Description	Fee Paid	Code (\$)	Code (\$)			1051 130	2051 65	Surcharge - Late filing fee or oath		1052 50	2052 25	Surcharge - Late provisional Filing Fee or cover sheet		1053 130	1053 130	Non-English specification		1812 2,520	1812 2,520	For Filing a Request for Reexamination. (ex parte)		1251 110	2251 55	Extension for reply within first month		1252 410	2252 205	Extension for reply within second month		1253 930	2253 465	Extension for reply within third month		1254 1,450	2254 725	Extension for reply within fourth month		1255 1,970	2255 985	Extension for reply within fifth month		1402 320	2402 160	Filing a brief in support of an appeal		1403 280	2403 140	Request for oral hearing		1814 110	2814 55	Terminal Disclaimer Fee		1452 110	2452 55	Petition to Revive - unavoidable		1453 1,300	2453 650	Petition to Revive - unintentional		1501 1,300	2501 650	Utility/Reissue issue fee (inc. advance copies)		1502 470	2502 235	Design issue fee (inc. advance copies)		1460 130	1460 130	Petitions to the Commissioner		1807 50	1807 50	Petitions related to provisional applications		1806 180	1806 180	Submission of Information Disclosure Statement		8021 40	8021 40	Recording each patent assignment per property (times number of properties)		Other Fee (specify) _____			
Large Entity Fee	Small Entity Fee	Fee Description	Fee Paid																																																																																												
Code (\$)	Code (\$)																																																																																														
1051 130	2051 65	Surcharge - Late filing fee or oath																																																																																													
1052 50	2052 25	Surcharge - Late provisional Filing Fee or cover sheet																																																																																													
1053 130	1053 130	Non-English specification																																																																																													
1812 2,520	1812 2,520	For Filing a Request for Reexamination. (ex parte)																																																																																													
1251 110	2251 55	Extension for reply within first month																																																																																													
1252 410	2252 205	Extension for reply within second month																																																																																													
1253 930	2253 465	Extension for reply within third month																																																																																													
1254 1,450	2254 725	Extension for reply within fourth month																																																																																													
1255 1,970	2255 985	Extension for reply within fifth month																																																																																													
1402 320	2402 160	Filing a brief in support of an appeal																																																																																													
1403 280	2403 140	Request for oral hearing																																																																																													
1814 110	2814 55	Terminal Disclaimer Fee																																																																																													
1452 110	2452 55	Petition to Revive - unavoidable																																																																																													
1453 1,300	2453 650	Petition to Revive - unintentional																																																																																													
1501 1,300	2501 650	Utility/Reissue issue fee (inc. advance copies)																																																																																													
1502 470	2502 235	Design issue fee (inc. advance copies)																																																																																													
1460 130	1460 130	Petitions to the Commissioner																																																																																													
1807 50	1807 50	Petitions related to provisional applications																																																																																													
1806 180	1806 180	Submission of Information Disclosure Statement																																																																																													
8021 40	8021 40	Recording each patent assignment per property (times number of properties)																																																																																													
Other Fee (specify) _____																																																																																															
FEE CALCULATION		Subtotal (3) \$																																																																																													
<b>1. BASIC FILING FEE</b>  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1001 750</td> <td>2001 375</td> <td><input checked="" type="checkbox"/> Utility Filing Fee</td> <td></td> <td></td> </tr> <tr> <td>1002 330</td> <td>2002 165</td> <td><input type="checkbox"/> Design Filing Fee</td> <td></td> <td></td> </tr> <tr> <td>1004 750</td> <td>2004 375</td> <td><input type="checkbox"/> Reissue Filing Fee</td> <td></td> <td></td> </tr> <tr> <td>1005 160</td> <td>2005 80</td> <td><input type="checkbox"/> Prov. Filing Fee</td> <td></td> <td></td> </tr> <tr> <td colspan="5" style="text-align: right;">Subtotal (1) \$ 750</td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1001 750	2001 375	<input checked="" type="checkbox"/> Utility Filing Fee			1002 330	2002 165	<input type="checkbox"/> Design Filing Fee			1004 750	2004 375	<input type="checkbox"/> Reissue Filing Fee			1005 160	2005 80	<input type="checkbox"/> Prov. Filing Fee			Subtotal (1) \$ 750																																																											
Large Entity		Small Entity		Fee Description																																																																																											
Fee	Fee	Fee	Fee																																																																																												
Code	(\$)	Code	(\$)																																																																																												
1001 750	2001 375	<input checked="" type="checkbox"/> Utility Filing Fee																																																																																													
1002 330	2002 165	<input type="checkbox"/> Design Filing Fee																																																																																													
1004 750	2004 375	<input type="checkbox"/> Reissue Filing Fee																																																																																													
1005 160	2005 80	<input type="checkbox"/> Prov. Filing Fee																																																																																													
Subtotal (1) \$ 750																																																																																															
<b>2. EXTRA CLAIM FEES</b>  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Number Claims</th> <th>Prior**</th> <th>Extra</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>22</td> <td>20</td> <td>2</td> <td>18</td> <td>36</td> </tr> <tr> <td>Indep.</td> <td>2</td> <td>3</td> <td>0</td> <td>84</td> <td>0</td> </tr> </tbody> </table> <p>Multiple Dependent Claims</p> <p>** Insert 3 and 20, or number previously paid if greater; Reissue see below</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1202 18</td> <td>2202 9</td> <td>Claims in excess of 20</td> <td></td> <td></td> </tr> <tr> <td>1201 84</td> <td>2201 42</td> <td>Independent claims in excess of 3</td> <td></td> <td></td> </tr> <tr> <td>1203 280</td> <td>2203 140</td> <td>Multiple Dependent Claims</td> <td></td> <td></td> </tr> <tr> <td>1204 84</td> <td>2204 42</td> <td>Reissue Independent Claims over Original Patent</td> <td></td> <td></td> </tr> <tr> <td>1205 18</td> <td>2205 9</td> <td>Reissue claims in excess of 20 and over original patent</td> <td></td> <td></td> </tr> </tbody> </table>			Number Claims	Prior**	Extra	Fee from Below	Fee Paid	Total	22	20	2	18	36	Indep.	2	3	0	84	0	Large Entity		Small Entity		Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1202 18	2202 9	Claims in excess of 20			1201 84	2201 42	Independent claims in excess of 3			1203 280	2203 140	Multiple Dependent Claims			1204 84	2204 42	Reissue Independent Claims over Original Patent			1205 18	2205 9	Reissue claims in excess of 20 and over original patent			Subtotal (2) \$ 36																																				
	Number Claims	Prior**	Extra	Fee from Below	Fee Paid																																																																																										
Total	22	20	2	18	36																																																																																										
Indep.	2	3	0	84	0																																																																																										
Large Entity		Small Entity		Description																																																																																											
Fee	Fee	Fee	Fee																																																																																												
Code	(\$)	Code	(\$)																																																																																												
1202 18	2202 9	Claims in excess of 20																																																																																													
1201 84	2201 42	Independent claims in excess of 3																																																																																													
1203 280	2203 140	Multiple Dependent Claims																																																																																													
1204 84	2204 42	Reissue Independent Claims over Original Patent																																																																																													
1205 18	2205 9	Reissue claims in excess of 20 and over original patent																																																																																													

Signature Robert M. Angus  
(Robert M. Angus)

Reg. No. 24,383

Date June 24, 2003

Deposit Account No. 12-2252